NEI for HAPS: 1999 and Beyond by

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Presentation Topics

1999 NEI for HAPs – Point Sources

- In 1999, issues of using state data also included CAPs, but today I will discuss HAPs.
- 2002 NEI Planning



Goal for Developing the NEI

The goal of producing the NEI is to compile a comprehensive anthropogenic inventory.

The primary use of the NEI is to support ambient air quality, depositional, and exposure modeling to support standards development. The use of the NEI for standards development, which are subject to intense scrutiny and litigation, requires US EPA to meet the highest level of new OMB Information Quality Guidelines of reproducibility and transparency. In order to meet these requirements, we have to use best available data. So we select the best data and add data if inventories submitted to EFIG are incomplete.

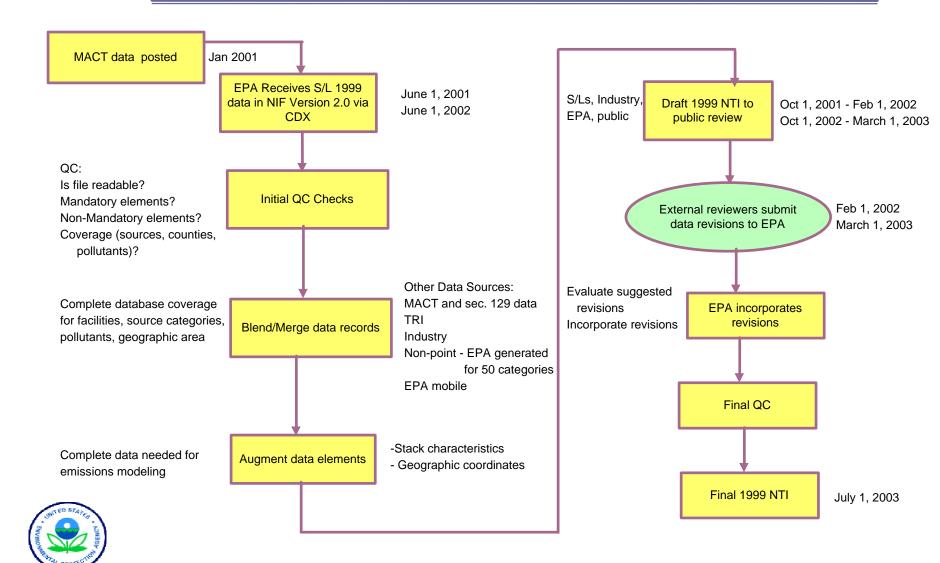
Other uses of the NEI include Trends analysis, reporting of data for international uses, etc.



1999 NEI for HAPS – Goals for Compilation

- Compile comprehensive anthropogenic inventory for all sources of HAPs
- Use standardized format for data inputs and outputs
 - NIF Version 2.0 to send in data
 - Outputs NIF Version 3.0, summary data tables
- Consistently use best data
 - Hg from Utilities and MWC data we will only use MACT data
 - Other sources use State and Local agency and Tribal data if best data available
- Improve QA/QC
 - Reduce number of missing sources
 - Reduce errors in geographic coordinates
 - Reduce number of missing stack parameters
 - Improve consistency in non-point sources across nation
 - Meet new OMB Information Quality Guidelines and new EPA Data Standards
- Reduce number of non-point source categories by increasing number of categories inventoried as point sources
- Integrate criteria and HAP emissions where feasible
- Stick to schedule





US EPA prepared and used Data Incorporation Plan for the 1999 NEI

- Plan described 1999 NEI methodology
- 1999 Q's and A's described how to report pollutants
- Inclusion of new mercury speciation elemental, ionic, particulate

Two opportunities for submittal of inventory data through CDX

Use of NIF to report data

US EPA compiles data from a variety of sources

- State and local agencies and tribes primary source of data
- US EPA data collected during development of standards
- Industry supplied data
- US EPA data for approximately 50 nonpoint source categories Addition of new categories (open burning of residential waste) and revised methodology for others (wildfires and prescribed burning)
 - if not provided by state and local agencies
- US EPA onroad mobile model, Mobile 6.2
- US EPA nonroad mobile model and methodologies for aircraft, locomotives, and commercial marine vessels



- 4. US EPA merges data from these sources, with attention to selecting the most reliable information in a given case, and to avoiding duplications.
 - Goal of blend/merge is to include emissions from all HAPS from all sources we add HAPs and processes if missing from state/local/tribal submissions
 - Blend/merge occurs at the emission release point level for point sources and at SCC level for nonpoint sources
 - More participation by state and local agencies 45 states (AK, GA, HI, IA, and SD did not participate) and 4 tribes (including 1 tribe in CA) participated
 - Use of improved ESD data for MACT and Residual Risk Categories MWCs, MWIs, Mercury from Utility Coal, HWIs – data based on source testing; Pulp/Paper, Refineries, Plywood, etc. based on Residual Risk data;
 - Point sources increased number of facilities to > 70,000 facilities
 - Moved several categories from nonpoint sources to point sources (landfills, etc.)
- US EPA augments data for missing or invalid stack parameters and location coordinates
 - QA augmentation Memo describes methodology for identifying invalid geocoordinates and stack parameters



6. US EPA conducted extensive internal and external QA/QC.

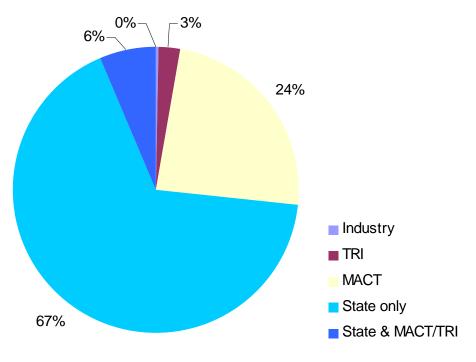
- Two rounds of external QC was conducted for a period of 9 months by EPA, Industry, Tribes, and state and local agencies.
- US EPA conducted automated QC for format and content
- US EPA developed QC tools for agencies and tribes to use prior to submitting inventory data to US EPA
- QA augmentation Memo describes methodology for defaulting of missing or invalid geocoordinates and stack parameters
- 1999 NEI for HAPs meets new OMB Information Quality Guidelines of transparency and reproducibility
 - Developed historical NEI that track revisions
 - Developing qualitative measure of quality of emission estimates
- 1999 NEI for HAPs meets new EPA data standards

7. US EPA released final 1999 NEI, version 3 in July 2003

Modeling Inventory available at: ftp://ftp.epa.gov/pub/EmisInventory/nei99model/
State Files, Summary Data files, Documentation, README, Code Lookup Table available at: www.epa.gov/ttn/chief/net/1999inventory.html#final3haps



1999 NEI for HAPS – CA Point Source Data



11896 total facilities

29 facilities - Industry only (0.2%) 306 facilities - TRI only (2.6%) 2844 facilities -MACT only (23.9%) – mostly landfills 8717 facilities - State (73.3%) 7964 State only (66.9% of total) 753 State and MACT/TRI (6.3% of total)



1999 NEI for HAPS – CA Point Source Data

CA Point Source Data Defaults

8717 total facilities provided by CA

Stack Defaults: 8608 facilities have at least 1 stack with stack parameter defaults.

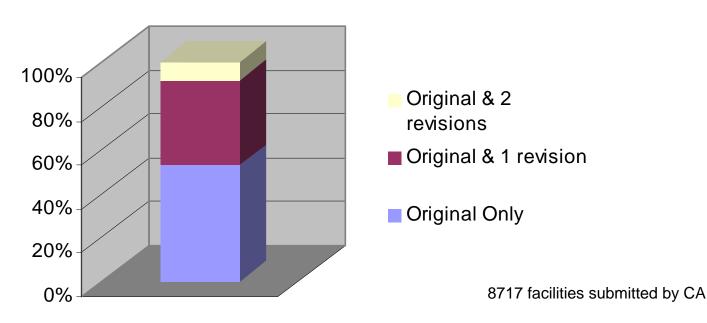
Location Defaults: 3806 facilities have at least 1 stack with lat/lon defaults

19 facilities missing facility name



1999 NEI for HAPS – CA Point Source Data

CA Point Source Data Submittals





726 original submission and 2 revisions 3362 original submission and 1 revision 4629 original submission only

1999 NEI for CAPs – CA Point Source Data

Other Data Sources:

- CEMS data for utilities SOx and NOx
- PM augmented data
- TRI and MACT data are not sources of CAP data in 1999 NEI; however in 2002 TRI will be used for ammonia and MACT CAP estimates will be used if not provided by state and local agencies and tribes



2002 NEI – Goals for Compilation

- Compile comprehensive anthropogenic inventory for all sources
- Use standardized format for data inputs and outputs
 - NIF Version 3.0 to send in data
 - Outputs NIF Version, summary data tables in ACCESS
- Consistently use best data
- Improve QA/QC including scientific peer review
- Meet new OMB information Quality Guidelines of reproducibility and transparency
- Meet new EPA Data standards
- Reduce number of non-point source categories by increasing number of categories inventoried as point sources
- Integrate criteria and HAP emissions for all source categories: point, non-point and mobile

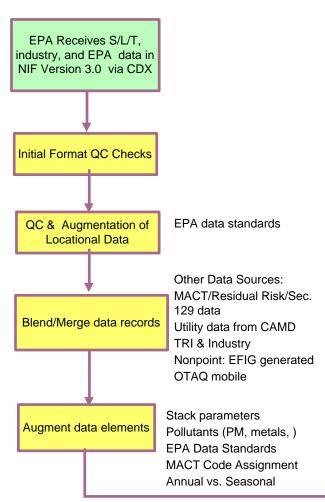


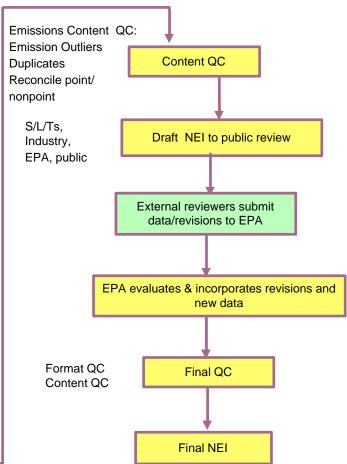
Format QC: Is file readable? Mandatory elements Non-Mandatory elements Referential integrity Invalid codes Range checks

Complete database coverage for facilities, source categories, pollutants, geographic area Assign Data Quality Rating to emissions

Complete data needed for emissions modeling







2002 NEI for HAPS – Recommendations

- Review the 2002 NEI Inventory Data Preparation Plan when it is available this fall to understand how US EPA will compile the 2002 NEI
- Sign up on the NEI listserve www.epa.gov/ttn/chief/listserv.html
- Provide final corrected data to US EPA that has undergone format and content QC
- Review the draft data and provide comments during comment period
 the comment period is the time to resolve problems
- Integrate criteria and HAP emissions for all source categories: point, non-point and mobile – we expect to uncover more data problems when we conduct content QC on an integrated inventory
- Communicate often and early well before final 2002 NEI is released

